भारत सरकार Government of India केन्द्रीय जल आयोग

Central Water Commission बाढ़ पूर्वानुमान प्रबोधन निदेशालय Flood Forecast Monitoring Directorate

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मानसून/ बाढ़ सम्बन्धी सनाचारों की कतरन ( News Clippings ) अवलोकन हेतु प्रस्तुत हैं :

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## Rain Forecasts: Orange Is The Tribune (Chanc The Hindu (Chenna The New Black Mark

The Assam Tribune (Guwanau)

The Times of India (Mumbai)

### City Got No Shower On Wed, Thurs As Monsoon Trough Travelled Faster: Met

Jasjeev.Gandhiok @timesgroup.com

New Delhi: On Tuesday, the India Meteorological Department (IMD) had issued an orange alert for moderate to heavy rain in the capital for three days from Wednesday to Friday. Delhi, however, recorded showers neither on Wednesday nor Thursday. You are not the only one wondering about the anomaly. Even IMD was taken by surprise. According to the met officials, the monsoon trough, which was supposed to move through Delhi-NCR on the two days, moved 'faster' than expected and ended up bringing rain instead to the foothills.

IMD's rain forecasts have generally been accurate, but there have been times when the forecast was off-target, forcing the agency to downgrade warnings from orange to yellow or green in a matter of hours. Officials say a combination of radar, satellite and forecasting models are employed, but human inference - an experienced team sits each morning to assess the weather patterns to arrive at the following day's forecast — can account for up to 60% of the prediction.

"A combination of machinery and human experience is put to use," explained an IMD official. "While the forecasting is generally accurate, a sharp change in the weather pattern or direction may cause rains to skip a city." He said there were always variables in forecasts in the tropical belt, 30 degrees either side of the equator, because of rapid changes in weather patterns. "Countries that use the same technologies might get more accurate results if they

While data from Delhi's five main stations is collected each day, the other stations are automatic weather stations and do not provide readings daily. This means that on certain days, there may be no representation for east and northwest Delhi

**HOW IS** 

DISTRICT-WISE

DATA COLLECTED



WHEN CAN FORECASTING GO WRONG

Experts say relying solely on satellite imagery can reduce the accuracy of long-term forecasting, even 24-hours in advance.

as monsoon clouds are more 'dynamic' and may change direction in a few hours' time

A number of forecasting models are used. However, the percentage chances in each model may vary, leaving IMD officials to identify the best 'option'

Najafagarh

IMD relies on automatic rain gauge

the rooftop of buildings. They collect

systems that are installed on

and provide data once a day

A combination of satellite, radar and balloon data is analysed by IMD scientists each day for a long-term forecast, with human contribution in the forecast going up to 50-60% at times

OTHER

University

Complex East

STATIONS

Narela

Lodhi Road

are further away from the equator," added the official.

MISSING OUT ON RAIN

and Thursday

What went wrong on Wednesday

Despite an orange alert -likelihood of

said the monsoon trough, which was

the foothills, bringing heavy rain there

'moderate' rain and 'heavy rain' in some

parts - for Delhi on Wednesday and Thursday,

no rain was seen on both days. IMD officials

days, moved 'faster' than usual and reached

estimated to pass over Delhi over the two

Kuldeep Srivastava, scientist at IMD, said Wednesday's alert was changed after the monsoon trough moved quickly crossed Delhi. "Instead of bringing rain to the region, it brought moderate to heavy precipitation in the foothills. It is moving south again and, therefore, bringing rain back to Delhi," Srivastava said on Friday. "During the monsoon season, a sudden change in the weather pattern or a change in the direction or speed of wind can occur, creating a dynamic system."

A scientist who works on forecasting told TOI that relying solely on satellite imagery could provide accurate predictions in the very short term, a forecast period of 2-3 hours. A 24-hour forecast might not turn out as accurate. Forecasting models are more accurate over the long term. To this, an IMD official added, "Outside of the monsoon season, you can study

the satellite imagery to make forecasts because it is easier to predict the conditions since there isn't much deviation in the weather system. During the monsoon, the clouds can change direction all of a sudden, move faster than normal and showers can develop in a matter of hours.'

Forecasts over the long term specify the percentage chances of a weather event taking place and this can help indicate the likelihood of precipitation. "Reducing human effort and rely-

ing more on the forecasting models can bring clearer outcomes," the scientist suggested.

For 'soft' indicators, IMD uses terms like 'unlikely' (less than 25% chance of a particular weather event occurring), likely (25-50%), very likely (75%) and most likely (higher than 75% chance) in its daily forecast. An official said, "This indicates roughly that if rain is forecast, it may not always occur. Much depends on the category of likelihood the rain forecast has been placed in."

Hindustan Times (Delhi)

नवभारत टाईम्स ( दिल्ली )

The Tribune (Chandigarh)

The Hindu (Chennai)

The Assam Tribune (Guwahati)

The Times of India ( Mumbai )

The Telegraph (Kolkata)

हिन्दुस्तान ( पटना )

The Deccan Hearld (Bengluru)

The Deccan Chronical (Hyderabad)

Central Chronical (Bhopal)

## Why Delhi's weather logs are skewed southward

Jasjeev.Gandhiok @timesgroup.com

New Delhi: Delhi may require a denser network of weather stations sited across the city to correctly gauge the rainfall. The five main stations, including those at Safdar-jung — the logs of which are taken as the base for Delhi's weather record Lodhi Road and Aya Nagar are all centred on the south and southwest Delhi. The Ridge station is the only one representing the northern part of the capital, while no main station represents northwest or east Delhi.

IMD officials disclosed that the Met department was in the process of setting up more automatic stations to help collect data from variable places to accurately determine the levels of precipitation in different parts of Delhi. For instance, The Aya Nagar station has recorded the

IMD SCIENTIST SAYS

Met dept is setting up more automatic stations to help collect rain data from different places in Delhi

most rainfall this season, but it lies closer to Gurgaon than the heart of the capital. To determine rainfall in certain parts of the city, met officials currently rely on a network of scientists and teams.

While Delhi does have more stations (automatic weather stations at Delhi University, Narela Najafgarh, Pusa and the sports complex in east Delhi), met officials are unable to get daily readings from there every day. The readings logged in these stations are inputted into the city figures only when they are able to 'capture' data there.

"At present, the five main

stations are considered while calculating weather data for Delhi," said Kuldeep Srivastava, scientist at IMD. "If the readings from the rest of the stations are received, they are included in the overall update."

The district-wise data of rainfall received each year is calculated by IMD not through weather stations readings, but the Automatic Rain Gauge Systems (ARGS) installed on the top of buildings. Srivastava revealed, "Rashtrapati Bhavan has one, and we have several ARGS in each district. They provide readings once a day for long-term data collection."

The seasonal data shows the Aya Nagar station recording the most rainfall so far (580.5mm), followed by Lodhi Road (552.2mm) and the Ridge (551.2mm). Safdarjung has recorded the least rainfall so far this season at 531.9mm. However, this figure is still 4% in excess of the 'normal' for the city.

Malvika Gupta, a resident of

started so far," said Rana.

Saket D-block, said there was colony. "It happens every mon-

almost knee-deep water in the soon. It is such a nightmare for Commuters were stuck on the

residents," said Gupta

road for hours as traffic crawled Aarti Arora, a commuter, said it took her more than an hour and a half to reach Ashram Chowk from DND Flyway There was a long queue on the

on waterlogged roads.

SANCHIT KHANNA/H

Hindustan Times ( Delhi )

नवभारत टाईम्स ( दिल्ली )

The Tribune (Chandigarh)

The Hindu (Chennai)

The Assam Tribune (Guwahati)

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हिन्दुस्तान ( पटना )

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Central Chronical (Bhopal)

# fall. The sewerage system is too every time there's good rainold and overflows even with little rain. The sewer lines had to be re-laid, but the process has no As rainfall returns, so do flooding, snarl



week, overcast skies gave way to capital on Friday. The spell of rain that lasted almost three

a downpour across the nationa

The Delhi traffic police said

severe congestion was reported from Ashram intersection, Delhi-Noida-Direct Flyway (DND), Noida Link Road, Vikas Marg, India Gate roundabout, and Con-

hours resulted in several arte-

rial roads being waterlogged

causing snarls at many places.

NEW DELHI: After a hot and humid

Cars stuck in a water-logged road at Anand Parbat on Friday,

tions got 35.8 mm and 23.6 mm rainfall, respectively. Aya Nagar station, however, recorded only traces' of rainfall

The India Meteorological

naught Place Outer Circle

among others.

Department (IMD) had issued an ing for Delhi-NCR warning of Tight to moderate' rain and

'Orange' alert on Friday morn-

"Delhi received moderate is passing over the city. Over the next two days, 'light' to 'very rainfall, as the monsoon trough ight' rain may occur, as the wards. On September 1 and 2, another spell of moderate rain is expected in Delhi, as the trough rough will be moving south-

> considered representative of Delhi's weather, recorded 23.2mm of rain in the 'moderate' category. Delhi Ridge weather station recorded 44mm rain

while Palam and Lodhi Road sta

The Safdarjung observatory

yan foothills because of which there was no rain in Delhi. On

August 20 and 21, Delhi had received 'heavy' to 'very heavy

Residential areas like GK-II is expected to move towards the Headded that there was a forenorth by then," said Kuldeep weather forecasting centre, said. cast of light rain over the past week, but the monsoon trough Srivastava, head, regiona had moved towards the Himala

struggling to wade through stretches. Residents dialed the Green Park and Saket saw massive water logging with vehicles knee-deep water on severa local municipal offices to pump

DND and they were moving at a

snail's pace. It was the same a The rain, coupled with Hary

Ashram Chowk too," she said.

ana releasing extra water into the Hathinikund barrage led to a

surge in the Yamuna river's

Sanjay Rana, president, GK-II raining. "This is the scenario

level of 204.50 metres.

out the water.

Welfare Association, said there side Savitri Cinema while it was was literally a river flowing out3 1/08/2010 | विम्निलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

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{ WETTEST } AUGUST

### Strong winds bring respite from humidity, rain likely this week

NEW DELHI: Hot and sweltry conditions of Saturday made way for gusty winds a day later. The Assam Tribune (Guwah, which helped pull the temperature down and keep the weather pleasant on Sunday.

While light rainfall was observed in some parts of the city, gusty winds brought down the day temperature by at least three notches.

On Sunday, the day (maximum) temperature recorded at 31.4 degrees Celsius, which is three notches below the season's average, the night (minimum) temperature settled at 26.7 degrees Celsius.

According to IMD officials,

the winds were recorded at a speed of 30-40kmph, which were mainly responsible for bringing the mercury down. "The winds were mainly because of cyclonic circulation in northwest Madhya Pradesh and northeast Rajasthan. The winds are likely to blow on Monday as well, however, the speed will slow down to 20-25 kmph," said Kuldeep Srivastava, head of IMD's regional weather forecast-

ing centre. Safdarjung Observatory, which is considered the representative of Delhi's weather. recorded only 'traces' of rainfall, Aya Nagar weather station

received 1.6 mm rainfall, Lodhi Road also recorded traces, while Palam received 0.9 mm rain.

The monsoon trough is southwards near South Rajasthan. Very light rain or drizzle is expected over the next two days. However, a good spell of rainfall is expected to hit Delhi between September 2 and 3 when the trough will be close to the northern region," said Srivastava. нтс



Scan the QR code to get more photos on Delhi wettest August in 44vrs

Central C

## Rainiest August in 44 yrs, 25% excess over the usual

HIGHEST SINCE 1976 Weather office predicts above-average rainfall until at least Sept 3

Jayashree Nandi

ters@hindustantimes.com

NEW DELHI: India this year has recorded the rainiest August in 44 years, data from the India Meteorological Department (IMD) shows, filling up agricultural reservoirs and recharging groundwater across large parts of the country in what could help the prospects of farmers for the next cropping season.

According to the data, there was an overall 25% excess rain in August across India, a level not seen since 1976 when the country received 28.4% more rain than is usual for this time of the year.

Districts in central India, the southern peninsula and in the west are now in severely or extremely wet categories, as measured by the standard precipitation index (SPI) for the cumulative monsoon period since June 1."More wet districts are a sign that it's a good year for agriculture and groundwater recharge. The rainwater harvesting potential is also huge for these districts and this will also ensure more water availability until next year," said Pulak Guhathakurta, head, climate application and user interface, climate research and services at IMD Pune.

SPI is an index used for drought monitoring. Many parts of northwest India and east India remain in dry and moderately



Flooding at Manikarnika Ghat in Varanasi.

dry categories.

The largest excess rain recorded in the month of August till now has been in 1926 at 33%.

Overall monsoon rain this year is 8% excess so far, with 23% excess rain over south peninsula; 16% excess over central India; 12% deficient over north-west India, and 4% excess over east and north-east India. The monsoon season runs from beginning of June to September end.

The Central Water Commistion's (CWC) storage position of dams now shows that 34 of 49 reservoirs are at 90% capacity.

For most districts, except a few in Gujarat which are inundated, rain has been good for agriculture. This will give a boost to agriculture in the coming Rabi

season also. Except Nagaland, Manipur, Mizoram, Tripura, Jammu and Kashmir, Ladakh and west Uttar Pradesh where rains are deficient, rest are in excess or normal category," said Mahesh Palawat, vice president, climate change and meteorology, Skymet Weather.

IMD in its weekly update on Friday said there will be above average rains at least for the week till September 3 but rains are likely to reduce thereafter.

As on Friday, there is a wellmarked low-pressure area over north Chhattisgarh adjoining East Madhya Pradesh. It is very likely to move west-north-west across north Madhya Pradesh and south Uttar Pradesh during next 2 days and weaken gradu-

ally, the IMD said in its Friday morning bulletin.

The western end of the monsoon trough - a band of low pressure -- is at its near normal position that stretches from Ganganagar to Bay of Bengal, while the eastern end is a south of its normal position. The western end is likely to remain along its normal position during next 2 days and shift northwards to the foothills of Himalayas for the subsequent 4-5 days. Due to favourable conditions, widespread rain with very heavy rain is likely over Vidarbha and Chhattisgarh on August 28; over West Madhya Pradeshon 28 and 29; over Gujarat state and Konkan and Goa on August 29.

Widespread and extremely heavy rain is very likely over east Madhya Pradesh on August 28, while heavy rain is also likely over northwest India including Punjab, Haryana, Uttar Pradesh and Delhi on August 28 and 29.

IMD scientists have warned of mudslides and flooding in parts of central India since the soil is already saturated in the regions.

'After a peculiar July when no low pressure system developed over Bay of Bengal, five low pressure systems developed over Bay of Bengal in August. Two of them moved upto south Rajasthan bringing heavy rain continuously in its way," said RK Jenamani, senior scientist at national weather forecasting centre.

दिनाक . 31/08/2020 को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hindustan Times (Delhi)

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The Tribune (Chandigarh)

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The Assam Tribune (Guwahati)

The Times of India (Mumbai)

The Telegraph (Kolkata)

हिन्दुस्तान ( पटना )

Central

The Dec After 'moderate' Friday, heavy rain likely next mth

TIMES NEWS NETWORK

New Delhi: The capital recorded "moderate" rain on Friday afternoon, leading to waterlogging in several areas. Delhi's Ridge station received 44mm rainfall till 5.30pm on Friday, while the Safdarjung observatory, Delhi's base station, in the same period recorded 23.2mm rainfall.

IMD has forecast a reduction in the intensity of rain in the next few days, adding that the next spell of heavy rain was likely only next month.

"The monsoon trough is moving southward and has crossed Delhi-NCR. From Saturday, the intensity of rain will reduce, and only drizzle to light rain is likely. During this spell, major rain was seen near the foothills as the monsoon trough moved swiftly, skipping Delhi," said Kuldeep Srivastava, scientist, IMD.

Delhi has already received four "heavy" rainfall days this season, while a "very heavy" rainfall was recorded on



August 20 when Aya Nagar saw 122.8mm rainfall. Meanwhile, district-wise data showed that all the districts were either in the "normal" or "excess" category, barring North West and North East Delhi, where rainfall is still "deficient". At 10%, the overall monsoon in the capital is currently in the "normal" range.

At 79, the Air Quality Index in the city was in the "satisfactory" range on Friday. The System of Air Quality

and Weather Forecasting and Research (SAFAR) said the rain activity was on the decline from Saturday, which would also have an effect on the air quality. "The overall AQI is in the lower end of the 'satisfactory'. Scattered to fairly widespread rain is forecast for the next two days. AQI forecast to stay in the 'good' to 'satisfactory' range for the next two days, and may marginally deteriorate from August 31," said SAFAR.

#### 14 killed as MP is hit by floods; Army, IAF, NDRF rescue 11.000

TIMES NEWS NETWORK

Bhopal: At least, 14 people have been killed over the past two days in floods and incessant rain in Madhya Pradesh.

Army, Air Force, NDRF and SDRF rescued 11,000 people and took them to temporary shelters-257 of them had to be rescued by helicopter. In just four hours, 193 people were airlifted from Bamori and Somalwada villages in Sehore district. They included 155 women and children. "It is probably the



**UGURATION:** A newly-built bridge in MP's Seoni district that hadn't been inaugurated yet collapsed on Sunday in the very first flood it faced. The construction of the 150-metre bridge, built at a cost of Rs 3cr, was completed in July

highest number of rescue by air in the state so far," Sehore collector Ajay Gupta told TOI.

Ten people were swept to their deaths in different districts. Most of them drowned. said officials. Four others were killed in house collapses.

"At least 800 houses have been fully damaged and 8,000 partially damaged," principal secretary to the CM Manish Rastogi told TOI. Among the worst affected districts are Hoshangabad, Sehore, Raisen, Seoni, Chhindwara, Narsinghpur and Balaghat.

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The Telegraph (Kolkata

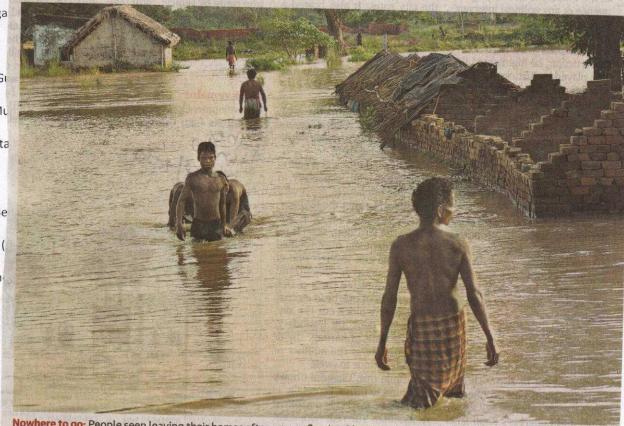
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Central Chronical (Bh

#### नवभारत टाईम्स ( बिल्ली ) In deep waters



Nowhere to go: People seen leaving their homes after an overflowing Bhargavi river, a branch of Mahanadi river, flooded the Balakati area on the outskirts of Bhubaneswar on Saturday. BISWARANJAN ROUT

## M.P. calls in Army, IAF for flood relief work

Heavy rain is likely in Jabalpur, Bhopal and Hoshangabad divisions for the next 48 hours: Chouhan

SIDHARTH YADAV

As many as 6,577 persons from 394 villages of nine districts in Madhya Pradesh were rescued within 36 hours of heavy rain that lashed southern areas on Friday and Saturday. Seven deaths had been reported, the State government said.

Two columns of Army had been requisitioned to help with moving people to safer spots in Raisen and Hoshangabad districts, Manish Rastogi, Revenue Commissioner, told The Hindu. The Air Force had also been roped

"Rain is unprecedented

like the previous year, but it didn't rain this much in 24 hours last year," Mr. Rastogi said. He added in 36 hours, most of the southern districts witnessed very heavy rain, such as Narsinghpur which received around 30 cm rain, "In Chhindwara and Sehore districts, we had to undertake air-lifting," he

Rescuers were trying to reach two villages in Hoshangabad and Raisen districts which had become islands. "The Chief Minister is reviewing rescue efforts village-wise. District administration and State officers from Home, Revenue and



Shivraj Singh Chouhan during an aerial survey of flood-hit areas on Saturday. \*SPECIAL ARRANGEMENT

Water Resource Departments are coordinating with the Army and the National Disaster Response Force," said Mr. Rastogi.

"Through dense clouds and rain, we tried to conduct

an aerial survey along the Narmada," CM Shivraj Singh Chouhan said on Saturday. "We reached the river but couldn't see anything, and had to return."

Owing to heavy rain, flood-like situation had developed in parts of Jabalpur, Bhopal and Hoshangabad divisions where heavy rain was expected to continue for the next 48 hours, he added. "By 10 a.m. the Narmada had breached the danger level in Hoshangabad," he said.

Almost all dams across rivers were full to the brim, the CMO said. All 13 gates of the Tawa dam, 22 of the Indira Sagar dam, 21 of 23 gates of the Omkareshwar Dam and 17 of the 21 gates of the Bargi Dam have been opened.

At present, the well marked low pressure area is located around the centralnorth Madhya Pradesh and the associated cyclonic circulation is active with a southwest tilt up to an altitude of 7.6 km above the sea level, said Ved Prakash Singh, Scientist and Head (DWR) Seismology) at the India Meteorological Department, Bhopal.

IMD Bhopal's senior meteorologist G.D. Mishra said only one district, Mandsaur, had received below normal rain from June to August 29.

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## Wettest August in India since 1976

NEW DELHI, AUGUST 29

The rainfall India received during August this year has been the highest for the month in the past 44 years, according to the IMD data.

Until August 28, the month recorded 25 per cent surplus rainfall. It has also surpassed the previous highest rainfall in August, which was recorded in 1983. In that year, August had recorded a 23.8 per cent excess rainfall.

As per the India Meteorological Department (IMD) data, the country had recorded a 28.4 per cent excess rainfall in August 1976.

The country has so far recorded 9 per cent more rainfall than normal. Bihar, Andhra Pradesh, Telangana,



A flooded village in Odisha. PTI

Tamil Nadu, Gujarat and Goa have recorded excess rainfall, while Sikkim has recorded a large excess. Many states witnessed floods as rivers swelled.

According to the Central Water Commission (CWC), the overall storage position of the reservoirs in the country till August 27 was better than the corresponding period last year. It was also better than the average storage for the last 10 years during the corresponding period, the CWC said.

"Better than normal storage" is available in the basins of the Ganga, Narmada, Tapi, Mahi, Sabarmati, the rivers of Kutch, Godavari, Krishna, Mahanadi, Cauvery, the neighbouring east-flowing rivers and the west-flowing rivers of south India, the CWC said. The Union Territory of Jammu and Kashmir, Manipur, Mizoram and Nagaland have recorded a deficient rainfall. - PTI



#### **HEAVY RAIN FORECAST FOR SEPTEMBER 2 & 3**

- The local MeT office on Sunday issued yellow warning of heavy rains in lower and mid hills of Himachal on September 2 and 3 and predicted wet spell in the region over the next six days. The monsoon remained weak in the state and moderate scattered rains occurred at some places.
- Jubbarhatti was the wettest in the state with 31mm of rain. Rains and thunderstorm accompanied by lightning are likely in mid and lower hills and rains and snow in higher hills for the next six days from August 31 to September 5, the MeT office said. TNS

Hindustan Times ( Delhi )

नवभारत टाईम्स ( दिल्ली )

The Tribune (Chandigarh)

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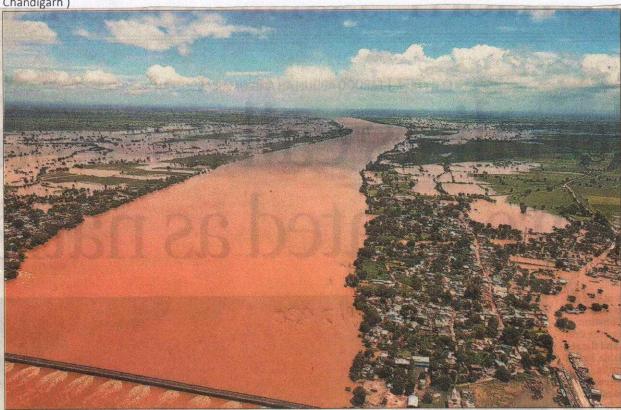
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Flood-affected areas of Hoshangabad district in Madhya Pradesh on Sunday.

PT

# Excess rain, overflowing dams flood central India

24 killed in Madhya Pradesh and Odisha; thousands displaced as heavy rain causes dams to overflow

#### **HT Correspondents**

letters@hindustantimes.com

NEW DELHI: An overflowing Narmada threw life out of gear in parts of Madhya Pradesh and Gujarat and water released from the Hirakud dam flooded several districts of Odisha on the weekend. At least 24 people were killed in MP and Odisha and thousands were displaced as heavy rainfall lashed parts of India, causing dams to overflow.

Rainfall has been 25% more than normal in August, which India Meteorological Department (IMD) is the highest for the month in 44 years. The previous highest in August was recorded in 1983, when rain was 23.8% more than the normal

In Madhya Pradesh, at least eight people were killed in the past 24 hours and more than 9,000 were moved to relief camps during rescue operations. The latest fatalities took the rain and flood-related death toll in MP to 129 since this monsoon. Sixteen people died in flooding in Odisha, officials said. A large number of people were airlifted to safety with the help of air force helicopters.

Chief minister Shivraj Singh Chouhan spoke to Prime Minister Narendra Modi on Sunday morning and sought his help in rescue operations being carried on by National Disaster Response Force (NDRF), State Disaster Response Force (SDRF), Home Guards, police and personnel of other departments.

"The rescue operations have been continuing since Friday evening. There are 454 villages in 12 districts affected by the flood. As many as 9,300 people have been moved to 170 relief camps," Chouhan said, adding that he was monitoring the flood situation from a control room set up at his residence. He said huge damage had been caused to standing crops and added that farmers will be compensated with crop insurance and other relief schemes. Large parts of the Narmada river basin in Gujarat were flooded as excess water was released from the Sardar Sarovar dam in the state and dams in Madhya Pradesh.

According to home ministry data, until Sunday, 175 people had died because in floods in Gujarat with half the deaths reported in August. "We are providing relief and relocating people from the worst affected areas," PTI quoted chief minister Vijay Rupani as saying.

Over 800,000 have been

affected across 500 villages of Odisha, said Special Relief Commissioner Pradeep Kumar Jena on Sunday. He said 50,000 people evacuated to safe shelters.

According to the the Central Water Commission's update dated August 29, eight dams have overflown including the Tawa dam in MP on the river Narmada; Rengali dam in Odisha on river Brahmani; and Hidkal in Karnataka on Ghataptrabha. River Mahanadi in parts of Chhattisgarh; Wainganga and Narmada in MP are rising rapidly. CWC said.

idly, CWC said.

"It's a dangerous situation. Any dam that reaches full reservoir level when monsoon is still underway can be disastrous for districts downstream. The dam operators should have released water gradually and not when it's already 100%," said Himanshu Thakkar, coordinator of South Asia Network of Dams, Rivers and People.

Hindustan Times ( Delhi )

नवभारत टाईम्स ( दिल्ली )

The Tribune (Chandigarh)

The Hindu (Chennai)

The Assam Tribune (Guwahati)

The Times of India (Mumbai)

The Telegraph (Kolkata)

हिन्दुस्तान ( पटना )

The Deccan Hearld (Bengluru)

The Deccan Chronical ( Hyderabad )

Central Chronical (Bhopal)

#### '11,000 rescued from floods in M.P.'

454 villages in 12 districts are severely battered, says CM

SIDHARTH YADAV

More than 11,000 persons stuck in floods in south and west Madhya Pradesh had been rescued in the past two days by the Army, Air Force and disaster response forces, said Chief Minister Shivraj Singh Chouhan on Sunday. As many as 454 villages in 12 districts of the State were severely battered by floods, he said. "And the Narmada has broken the record of flooding in 1999," he added.

Besides, 9,300 persons had been taken to 170 relief

While Mr. Chouhan ap-

prised Prime Minister Narendra Modi of the situation on Sunday morning, at night he requested the Army for five



An Air Force helicopter rescuing people stranded in floods in Madhya Pradesh.

\*SPECIAL ARRANGEMENT

helicopters to step up rescue efforts. Until Sunday evening, 267 persons had been airlifted by the Air Force using helicopters.

Further, two columns of the Army having 70 soldiers each were sent to Bari and Bareli in Raisen districts, he added. "Air-lifting of stranded persons will begin in Raisen and Sehore districts."

With Nasrullaganj and Shahganj in Sehore district as base, the Army would rescue those stranded in nearby areas. "Rain has stopped at several places. And the discharge from dams has reduced," said Mr. Chouhan. In Narela of Sehore district, rescuers took to a safe spot five persons sitting on a tree at 2.30 a.m., he added.

Extremely heavy rain from 8.30 a.m. on Saturday to 8.30 a.m. on Sunday was recorded in west M.P. in Hoshangabad, Sehore, Ujjain, Dewas and Agar Malwa districts, said the India Meteorological Department, Bhopal.

## Over 14,000 evacuated as heavy rain pounds parts of Nagpur

Army deployed in submerged areas of Kuhi tehsil

PRESS TRUST OF INDIA

More than 14,000 people were evacuated after torrential rains over the past two days triggered flooding in several tehsils of Nagpur district of Maharashtra, officials said on August 30.

Mouda, Kamptee, Parseoni and Kuhi were the worst affected tehsils, and the administration had to call in the National Disaster Response Force (NDRF) and the Army to rescue people at some places, they said. Besides Nagpur, several villages in neighbouring Gadchiroli district also witnessed flooding in some parts following heavy rains.

"Till Sunday noon, 14,234 people were evacuated from 36 affected villages in Nagpur district as incessant downpour in the last two

days resulted in flow of water from dams and rivers," Nagpur District Collector Ravindra Thakre said in a statement. Nagpur district on August 29 registered 81.43 mm rainfall, he said.

Due to heavy rains, nine villages in Mouda tehsil were flooded, from where 1,568 people were moved to safer place by the State Disaster Response Team (SDRF) and the NDRF on August 29.

Similarly, eight villages in Kamptee tehsil were hit by rains and 620 people were shifted to safer places the rescue teams on Saturday.

Defence spokesperson
Basantkumar Pande said
that as per the request made
by the district administration, Army was deployed for
assistance in the submerged
areas of Kuhi. "UMANG Sub
Area pressed into service

two columns overnight for rescue and relief operations. With the unprecedented rains and resultant heavy flow of water in various rivers, a number of areas in Nagpur district have been inundated," he said.

"The Army columns will be assisting the administration in rescuing villagers stranded in submerged areas of Kuhi and the surrounding places, and also help in restoring normalcy in these inundated areas," Mr. Pande added.

The District Information Office of Gadchiroli said that 52 families were evacuated from the flooded parts of Desaiganj tehsil in the district on August 29. Connectivity of five main roads was snapped due to excess water flowing from the Gosikhurd dam in Bhandara district.

Hindustan Times (Delhi)

नवभारत टाईम्स ( दिल्ली )

The Tribune (Chandigarh)

The Hindu (Chennai)

The Assam Tribune (Guwahati)

The Times of India (Mumbai)

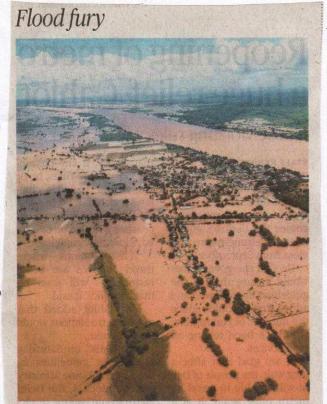
The Telegraph (Kolkata)

हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)

The Deccan Chronical (Hyderab

Central Chronical (Bhopal)



An aerial view of the flood-hit Hoshangabad in Madhya Pradesh. Nearly 8,000 people were rescued after the Narmada went into spate. \*SPECIAL ARRANGEMENT (REPORT ON PAGE 10)

#### 2,000 shifted from Narmada river bank

PRESS TRUST OF INDIA

Heavy rainfall in parts of Guiarat on Sunday created a flood-like situation in many areas including Bharuch, where over 2,000 people from inundated areas along the Narmada river were evacuated following release of water from the Sardar Sarovar dam.

Teams of the National Disaster Response Force (NDRF) and State agencies were involved in the rescue operations in Bharuch.

The India Meteorological Department has predicted heavy to very heavy rainfall with extremely heavy showers at isolated places in many districts till Tuesday. Since Sunday morning, Panchmahal, Rajkot, Banaskantha, Va-Panchmahal, dodara, Botad, Ahmedabad and some other districts received heavy rain.

## 14 lakh affected, 17 killed in Odisha floods

About 2.65 lakh people marooned in 340 villages; 1.68 lakh hectare of crop land hit

SATYASUNDAR BARIK BHUBANESWAR

Over 14 lakh people were affected due to floods in five river systems of Odisha, the State government said here on Sunday. Seventeen people lost their lives in a wall collapse and by slipping into swollen rivers.

"Heavy rain triggered by back-to-back low pressure area over the Bay of Bengal had caused flooding in 20 districts. The situation is fast improving in areas falling under Subarnrekha, Burhabalanga, Baitarani and Brahmani river systems," said Pradeep Jena, Managing Director of the State Disaster Management Authority.

According to the office of Special Relief Commissioner, 2.65 lakh people were marooned by vast sheets of water in 340 villages and 57,824 people were being served cooked food after their evac-



People wading through a flooded road on the outskirts of Bhubaneswar on Sunday, \*BISWARANJAN ROUT

uation from water-logged

Preliminary assessment of floods suggests 10,382 houses and 1.68 lakh hectare of crop land were affected.

Infrastructure damaged The floods also caused massive damage to infrastructure. In 11 districts, 107 roads were cut off by the swirling water and 32 breaches on river embankments were detected in five districts.

In order to rescue people and provide essential material, 254 boats were deployed in different districts. Fourteen units of the National Disaster Response Force and 17 teams of the Odisha Disaster Rapid Action Force were carrying out relief operations.

Authorities ruled out massive floods in coastal districts as little over 10 lakh cusecs of water was flowing through Naraj barrage - the last major flood control structure before the Mahanadi waters hit the low-lying coastal areas. In the past, Naraj barrage had registered a flow of more than 15 lakh cusecs through

The water inflow into Hirakud Reservoir from upper catchment is around 8 lakh cusecs while 7.5 lakh cusecs of water is being released through 46 gates of the dam. As per our estimate, peak water flow has passed through Naraj," said Anu Garg, State Water Resource

Secretary.

Keeping in mind the vulnerability of the low-lying areas in Jagatsinghpur, Puri and Kendrapara districts, experienced engineers and night patrolling teams have been deployed along major river embankment.